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Bijstra, J.O.; Jackson, A.E.; Bosma, H.A.

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SOCIAL SKILLS AND PSYCHO-SOCIAL FUNCTIONING IN EARLY ADOLESCENCE: A THREE-YEAR FOLLOW-UP

Jan O. Bijstra* , Sandy Jackson and Harke A. Bosma

*University of Groningen, Department of Psychology
Developmental and Experimental Clinical Psychology,
Groningen, The Netherlands*

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SYNOPSIS

This study discusses the relationships between early adolescents' social skills and aspects of psycho-social functioning, viz., self-esteem, well-being, coping and social support. A group of 312 adolescents responded three times to a series of self-report measures. The second and third surveys were done one and three years after the first survey. The results showed that, after the social skills measure had led to the identification of three subgroups (Subassertives, Assertives and Indifferents), these groups showed distinguishable profiles in the different psycho-social measures. Moreover, these profiles remained stable over time: after three years, the groups were still clearly distinguishable in terms of social skills, self-esteem, well-being and coping. The results lead to the conclusion that social skills play a fundamental role in adolescent development.

* Correspondence address:

Dr. J.O. Bijstra
University of Groningen, Department of Psychology
Developmental and Experimental Clinical Psychology
Grote Kruisstraat 2/1, 9712 TS Groningen,
The Netherlands.

INTRODUCTION

Adolescence is an important period for the learning and development of social skills /1,2/. As young people enter adolescence, they meet a range of new social situations and roles with which they have to deal. In order to fulfill this task, adequate social skills are required. Social skills in adolescence have been an object of study in the last two decades. However, surprisingly little attention has been paid to the question how in a *normal* developmental context, social skills are related to general aspects of psycho-social functioning. Instead, many studies in this area of research have a strong *clinical* orientation. For example, one line of research is concerned with the social skills of specific groups like schizophrenic /3/ or epileptic /4/ adolescents. Another line concerns the relationships between poor social skills in adolescence and problems in later life such as delinquency, poor school adjustment, poor academic performance, marginal employment records and mental health problems /1,2/.

Although it is beyond doubt that these studies have greatly increased our knowledge, they do not focus on the more fundamental question how social skills are embedded in normal development. Nevertheless, in order to gain more insight into the extent to which adolescents' psycho-social functioning may be determined by their level of social skills, this is an important question. Moreover, a shift in attention from the study of deviant to normal development may also lead to a greater emphasis on the development of *preventive* intervention strategies /5/. Thus far, intervention (including social skills programmes) has tended to remain too narrowly focussed on the *correction* of problem behaviour of specific adolescent groups instead of on the prevention of problem behaviour.

At least one study has recently investigated the relationships between normal adolescents' social skills and aspects of psycho-social function (see Riggio, Throckmorton & DePaola /6/ for a study with young adults). Bijstra, Bosma and Jackson /7/ studied the extent to which social skills were related to self-esteem, well-being, coping and social support. Measuring social skills led to the identification of three subgroups – Subassertives (characterised by a relatively high level of anxiety and low level of performance in social situations), Assertives (low anxiety, high performance) and Indifferents (low anxiety, low performance) – these groups showed distinguishable profiles in the different psycho-social domains.

In short, the Subassertives had the most negative profile. In almost every respect, they could be distinguished from the most positive subgroup, the Assertives. They had a lower level of self-esteem and well-being, they made less use of adequate coping strategies and more use of inadequate ones, and they had fewer people available for help. The Indifferents showed an in-between profile. They had a higher level of self-esteem and well-being and they made less use of inadequate coping strategies than the Subassertives. On the other hand, they made less use of adequate coping strategies and they had fewer people available for help than the Assertives.

The study discussed in the present article is an extension of Bijstra *et al.*'s study. A proportion of their sample (312 out of 660 adolescents) responded three times to a series of self-report measures. Survey I was carried out at the beginning of the study, survey II a year after survey I and survey III almost three years after survey I. The study aimed to explore whether the adolescents' level of social skills at survey I was a good predictor of their social skills level and their psycho-social functioning at survey II and III. So, for the sake of clarity, Bijstra *et al.*'s study /7/ discussed above only referred to survey I while the present study concerned data from all three surveys. On the other hand, the analyses in Bijstra *et al.*'s study /7/ were based on 660 respondents and those in the present study on 312.

We anticipated that the level of social skills would remain relatively stable over time. Thus, it was expected that even after three years, Subassertives, Assertives and Indifferents would still be three clearly distinguishable subgroups. Furthermore, we also expected that the three subgroups would show relatively stable profiles in the different psycho-social measures, viz. a negative profile for the Subassertives, a positive profile for the Assertives and an in-between profile for the Indifferents.

METHODS

Subjects

A group of 312 adolescents from four secondary schools in the Northern part of the Netherlands was involved in the total study. This group consisted of 62% girls and 38% boys. At the beginning of the study (survey I), respondents were aged between 13 and 15 (55% 12-year-olds, 34% 14-year-olds and 11% 15-year-olds) and they could be categorised according to four different levels of education: 27% mavo-students, 17% havo-students, 35%

havo/vwo-students and 21% vwo-students (mavo is the name of the Dutch school-type for students with average ability; havo, havo/vwo and vwo are school-types for students with above-average ability).

Measures and procedure

As mentioned, adolescents responded three times to a series of self-report measures. The measures concerned the following domains: 1. social skills; 2. self-esteem and well-being; 3. coping; 4. social support.

Social skills were assessed by using the Dutch scale SIG-A, the Scale for Interpersonal Behavior Adolescent version, /8/. The SIG-A consists of four subscales which refer to different types of social situations: situations in which it is appropriate to display negative feelings (1), to express personal limitations (2), to initiate assertiveness (3) and to display positive feelings (4). Respondents indicate to what extent such situations make them anxious (anxiety-dimension) and how often they engage in such situations (performance-dimension). This means that the SIG-A yields eight subscores, viz., four anxiety- and four performance-subscores.

Self-esteem and well-being were measured by using five different tests. By means of the CBSA, the Perceived Competence Scale for Adolescents /9,10/, respondents indicate how they perceive themselves with regard to seven specific domains (for example, 'scholastic competence') and one global domain, viz., 'global self-worth'. In the present study, only the results on the latter subscale were calculated. The Dutch scale VOG, the Physical Health Questionnaire /11/, was used to get an indication of how adolescents perceived their physical health. The AGV, a translation of the General Health Questionnaire /12/ was used to assess the adolescents' perceptions of their psycho-social health. A Dutch version of the Affect Balance Scale /13/ was used to assess the degree to which positive and negative feelings are experienced. With the Cantril Ladder /14/, respondents were asked to give a subjective and global indication of their quality of life.

Coping strategies were assessed with the Dutch scale UCL-A, the Utrecht Coping Scale Adolescent version /15/. Respondents indicate the extent to which they make use of adequate or inadequate coping strategies. In this study, the results on the following subscales were calculated: 1. CONF: confronting the problem (adequate); 2. SOC: seeking social support (adequate); 3. AVOID: avoidance reactions (inadequate); 4. DEP: depressive reactions (inadequate).

Finally, social support information was gathered by asking adolescents how many people are available for help when they have a problem. Six possible answers were offered: father, mother, brothers/sisters, friends, classmates, other people. Problems could be specified according to the domain school, parents and friends.

Statistical Analyses

Survey I

As a first step, a cluster analysis was performed on the survey I scores of the social skills measure (SIG-A). The eight subscales of the SIG-A (four anxiety- and four performance-subscales) were used as grouping variables. As mentioned earlier, this analysis had already been carried out by Bijstra *et al.* /7/ who found evidence for the existence of three subgroups, viz. Subassertives, Indifferents and Assertives. The results of the cluster analysis presented in the present study refer to those 312 respondents who were involved in all three surveys.

Multivariate (manovas) and univariate (anovas) analyses of variance were then performed using the survey I classification Subassertives – Indifferents – Assertives as the independent variable and five groups of measures at survey I as the dependent variables: 1. the four anxiety subscales, 2. the four performance subscales, 3. the five self-esteem/well-being measures, 4. the four coping subscales, 5. the three social support measures. These analyses were carried out in order to explore in which of the eight social skills subscales the three subgroups were significantly different (dependent variables 1 and 2) and whether the subgroups would show distinguishable profiles in the psycho-social domains self-esteem/well-being, coping and social support (3, 4 and 5).

Furthermore, a series of Tukey tests, a test for all possible differences between subgroups among the means, was carried out to study which subgroups were significantly different on the dependent variables. For example, when an anova had shown that the three subgroups were significantly different on the coping subscale 'seeking social support', a Tukey test was performed to explore whether this effect was due to a difference between the Subassertives and Assertives, the Indifferents and Assertives and/or the Subassertives and Indifferents.

Survey II and III.

The second step concerned the question whether the three subgroups were still clearly distinguishable at survey II and III. Again, manovas, anovas and Tukey tests were performed; while the survey I subgroup classification was again used as the independent variable, the five groups of measures at survey II and III were used as the dependent variables.

RESULTS**Survey I**

Table 1 presents the results of the cluster analysis on the survey I scores of the SIG-A, viz. the means and standard deviations for the three identified subgroups and for the total group of respondents.

Table 2 shows the results of the manova, anova and Tukey analyses

Table 1

Results (mean and standard deviations) of the cluster analysis.

Anxiety: the higher the mean score on a subscale, the higher the level of anxiety. Performance: the lower the score on a subscale, the lower the level of performance. Subscales: 1 = displaying negative feelings, 2 = personal limitations, 3 = initiating assertiveness, 4 = displaying positive feelings.

		SIG-A subscales							
		1		2		3		4	
	N =	mean	sd	mean	sd	mean	sd	mean	sd
ANXIETY									
Subassertives	60	33.1	4.8	25.4	4.3	21.2	3.4	21.4	3.9
Indifferents	148	21.6	3.9	18.4	3.6	13.8	2.8	14.4	3.6
Assertives	99	19.9	4.6	16.4	2.8	12.1	2.5	12.7	3.6
Total group of respondents	307	23.3	6.6	19.1	4.8	14.7	4.3	15.2	4.8
not classified	5								
PERFORMANCE	N =								
Subassertives	60	37.9	6.0	41.9	5.6	25.3	4.2	19.7	4.2
Indifferents	148	37.3	6.0	38.6	5.7	25.6	4.0	20.8	3.5
Assertives	99	48.5	5.7	49.5	5.9	32.7	3.8	26.6	4.3
Total group of respondents	307	41.0	7.9	42.8	7.5	27.8	5.2	22.5	4.8
not classified	5								

Table 2

Survey 1 manovas, anovas and Tukey tests; dependent variables: SIG-A : 1 = displaying negative feelings, 2 = personal limitations, 3 = initiating assertiveness, 4 = displaying positive feelings, CBSA = self-esteem, VOEG = physical health, AGV = psycho-social health, ABS = feelings, ladder = quality of life, CONF = confronting the problem, SOC = seeking social support, AVOID = avoidance reactions, DEP = depressive reactions.

manova	F=	p <			
anxiety	37.42	.001			
performance	34.08	.001			
self-esteem/well-being	4.81	.001			
coping	5.60	.001			
social support	4.09	.001			
anova	F=	p <	Tukey		
<i>anxiety (SIG-A)</i>			<i>sub > ass</i>	<i>sub > ind</i>	<i>ind > ass</i>
1	194.84	.001	yes	yes	yes
2	127.29	.001	yes	yes	yes
3	208.36	.001	yes	yes	yes
4	113.40	.001	yes	yes	yes
<i>performance (SIG-A)</i>			<i>sub < ass</i>	<i>sub < ind</i>	<i>ind < ass</i>
1	118.15	.001	yes	no	yes
2	107.16	.001	yes	yes	yes
3	111.25	.001	yes	no	yes
4	85.19	.001	yes	no	yes
<i>self-esteem/well-being</i>			<i>sub < ass</i>	<i>sub < ind</i>	<i>ind < ass</i>
CBSA	16.04	.001	yes	yes	yes
VOEG	3.32	.05	no	yes	no
AGV	11.02	.001	yes	yes	no
ABS	11.57	.001	yes	yes	yes
ladder	5.27	.01	yes	no	no
<i>coping (UCL-A)</i>			<i>sub < ass</i>	<i>sub < ind</i>	<i>ind < ass</i>
CONF	11.12	.001	yes	no	yes
SOC	9.97	.001	yes	no	yes
AVOID	--	--	no	no	no
			<i>sub > ass</i>	<i>sub > ind</i>	<i>ind > ass</i>
DEP	10.15	.001	yes	yes	no
<i>social support</i>			<i>sub < ass</i>	<i>sub < ind</i>	<i>ind < ass</i>
domain school	3.93	.05	no	no	yes
domain parents	9.64	.001	yes	no	yes
domain friends	5.18	.01	yes	no	no

which were carried out on the survey I data. For each group of dependent variables, there were clear multivariate effects (for example anxiety: F =

37.42, $p < .001$). The anova and Tukey results can be summarised as follows:

1. *Anxiety*. The three subgroups significantly differed on each of the four subscales (for example, subscale 1: $F = 194.84$, $p < .001$). The Subassertives had significantly higher scores on each subscale than the Assertives and Indifferents. Moreover, the Indifferents had significantly higher scores on each subscale than the Assertives. Note, however, that both the Assertives and Indifferents had *below-average* means (see Table 1 and compare the subgroup means with the total group mean).
2. *Performance*. Again, the three subgroups significantly differed on each of the four subscales. These effects were due to the difference between Subassertives and Indifferents on the one hand and Assertives on the other: the Subassertives and Indifferents had lower scores on each subscale than the Assertives. Except for subscale 2, the Subassertives and Indifferents did not differ.
3. *Self-esteem/well-being*. The three subgroups had significantly different scores on all five scales. These effects were mainly due to the difference between the Subassertives on the one hand and the Assertives and Indifferents on the other: the Subassertives had significantly lower scores on most of the measures than the other two subgroups. The Assertives and Indifferents differed on the CBSA and ABS, but not on the VOEG, AGV and ladder.
4. *Coping*. The subgroups differed on subscales CONF, SOC and DEP, but not on AVOID. With regard to adequate coping (CONF and SOC), the effects were due to the difference between the Subassertives and Indifferents on the one hand and the Assertives on the other: the Subassertives and Indifferents had lower (= more negative) scores than the Assertives. With regard to the inadequate coping strategy DEP, effects were due to the difference between the Subassertives on the one hand and the Assertives and Indifferents on the other: the Subassertives had higher (= more negative) scores than the other two groups.
5. *Social support*. The three subgroups had significantly different scores on all three scales. These effects were due to the difference between the Subassertives and Indifferents on the one hand and the Assertives on the other: with regard to 'school' and 'parents', the Indifferents had lower (= more negative) scores than the Assertives and on 'parents' and 'friends', the Subassertives scored more negatively than the Assertives.

Surveys II and III

Table 3 shows the results of the statistical analyses which were carried out on the survey II and III data. In general, the results were similar to those found in the previous analyses. To summarise:

1. *Anxiety*. The subgroups still differed on each of the four subscales: the Subassertives had significantly higher scores than both the Assertives and Indifferents. While the Indifferents also had higher scores than the Assertives at survey I, this difference almost completely disappeared at surveys II and III (except for two subscales at survey II). However, since both the Indifferents and Assertives already had *below*-average anxiety scores at survey I, this change does not seem to have very much significance.
2. *Performance*. Again, the subgroups differed on each of the subscales. As was the case with the survey I data, the Subassertives and Indifferents had lower scores on each subscale than the Assertives; the Subassertives and Indifferents did not differ.
3. *Self-esteem/well-being*. The three subgroups had significantly different scores on all five scales. As in the survey I analyses, these effects were due to the difference between the Subassertives on the one hand and the Assertives and Indifferents on the other: the Subassertives had lower scores on most of the measures than the Assertives and Indifferents. The latter two groups did not differ.
4. *Coping*. Again, the subgroups differed on subscales CONF, SOC and DEP, but not on AVOID. With regard to CONF and SOC (the two adequate coping strategies), this was mainly due to the difference between the Indifferents and Assertives: the Indifferents had more negative scores. While the Subassertives had also scored more negatively than the Assertives at survey I, this was not so clearly the case at surveys II and III: only at survey III, the two groups significantly differed on subscale CONF. With regard to subscale DEP (the inadequate coping strategy), Subassertives – as in survey I – had more negative scores than the other two groups.
5. *Social support*. Social support was the only psycho-social domain which did not show a stable pattern from survey I to survey III. Although the three groups clearly differed at survey I, these differences had already disappeared one year later.

Table 3

Survey II and III manovas, anovas and Tukey tests; dependent variables: SIG-A 1 = displaying negative feelings, 2 = personal limitations, 3 = initiating assertiveness, 4 = displaying positive feelings, CBSA = self-esteem, VOG = physical health, AGV = psycho-social health, ABS = feelings, ladder = quality of life, CONF = confronting the problem, SOC = seeking social support, AVOID = avoidance reactions, DEP = depressive reactions.

manova	F=	p<	F=	p<						
	survey II		survey III							
anxiety	12.69	.001	8.94	.001						
performance	10.80	.001	11.10	.001						
self-esteem/well-being	2.84	.01	4.08	.001						
coping	3.82	.01	4.01	.001						
social support	.99	ns	1.36	ns						
anova	F=	p<	F=	p<	Tukey					
anxiety (SIG-A)	survey II		survey III		II	III	II	III	II	III
1	54.15	.001	32.96	.001	sub>ass	sub>ind	ind>ass			
2	30.35	.001	17.04	.001	yes	yes	yes	yes	yes	no
3	42.03	.001	23.54	.001	yes	yes	yes	yes	no	no
4	34.84	.001	25.48	.001	yes	yes	yes	yes	no	no
performance (SIG-A)					sub<ass	sub<ind	ind<ass			
1	29.80	.001	24.87	.001	yes	yes	no	no	yes	yes
2	21.68	.001	20.03	.001	yes	yes	no	no	yes	yes
3	26.73	.001	20.44	.001	yes	yes	no	no	yes	yes
4	25.43	.001	26.89	.001	yes	yes	no	no	yes	yes
self-esteem/well-being					sub<ass	sub<ind	ind<ass			
CBSA	8.49	.001	8.51	.001	yes	yes	yes	yes	no	no
VOEG	3.58	.05	9.61	.001	no	yes	yes	yes	no	no
AGV	7.02	.01	9.04	.001	yes	yes	yes	yes	no	no
ABS	7.13	.001	7.82	.001	yes	yes	no	no	no	no
ladder	4.37	.05	6.40	.01	yes	yes	no	no	no	no
coping (UCL-A)					sub<ass	sub<ind	ind<ass			
CONF	6.45	.01	9.12	.001	no	yes	no	no	yes	yes
SOC	9.13	.001	4.41	.05	no	no	no	no	yes	yes
AVOID	--	--	3.17	.05	no	no	no	no	no	no
DEP	7.65	.001	10.44	.001	sub>ass	sub>ind	ind>ass			
social support					sub<ass	sub<ind	ind<ass			
domain school	--	--	--	--	no	no	no	no	no	no
domain parents	--	--	--	--	no	no	no	no	no	no
domain friends	--	--	--	--	no	no	no	no	no	no

DISCUSSION

The results of the present study show an important and interesting extension of Bijstra *et al.*'s findings /7/. While Bijstra *et al.* identified three subgroups – Subassertives, Assertives and Indifferents – which showed distinguishable profiles in the psycho-social domains self-esteem and well-being, coping and social support, the present study revealed that, in general, these profiles remained stable over time. Even after almost three years, the subgroups were still clearly distinguishable in terms of social anxiety and social activity, self-esteem and well-being, and coping. The only domain that did not discriminate at surveys II and III was social support. The profiles can be described as follows.

The Subassertives had the most negative profile. Once identified as the group with the highest level of social anxiety, the lowest levels of self-esteem and well-being and the highest score on the inadequate coping strategy 'depressive reactions', they remained in that position for, at least, a three-year period. Furthermore, at all three surveys, they had a lower level of performance in social situations than the Assertives. On the other hand, the picture is less clear with regard to the use of adequate coping strategies. Although the Subassertives made less use of the two coping strategies 'confronting the problem' and 'seeking social support' than the Assertives at survey I, this pattern did not emerge at survey II and III, except for 'confronting the problem' at survey III.

The Assertives had the most positive profile. At all three surveys, they had a lower level of anxiety, a higher level of performance, higher levels of self-esteem and well-being and a lower score on the coping strategy 'depressive reactions' than the Subassertives. Furthermore, they had a higher level of performance and higher scores on the two adequate coping strategies 'confronting the problem' and 'seeking social support' than the Indifferents. Moreover, the two groups also differed at survey I – and to some extent at survey II – with regard to social anxiety.

Finally, the Indifferents had an in-between profile. Nevertheless, their scores seemed to make up a rather consistent picture. On the one hand, the Indifferents were not an overly active group. With regard to this *behavioural* aspect, they could clearly be differentiated from the Assertives: they had a lower level of performance in social situations and made less use of the active coping strategies 'confronting the problem' and 'seeking social support'. On the other hand, this did not seem to have any consequences for

how they felt. In fact, they seemed to feel quite well. Thus, with regard to this *experiential* aspect, they clearly differed from the Subassertives in that they had a lower level of social anxiety and higher levels of self-esteem and well-being, and in that they made less use of depressive coping reactions.

In short, an adolescent's social skills profile is a strong predictor for his/her level of social skills and psycho-social functioning at a later age. Given the fact that our respondents were not a specific, problematic group, but just a normal group of adolescents, these findings support the hypothesis that social skills play a fundamental role in adolescent development /6/.

A last remark concerns the practical implications of these findings. As was mentioned earlier, intervention strategies (including social skills training) have tended to remain too narrowly focussed on particular problem groups. The results in the present study point to the necessity of developing more general, preventive social skills programmes. This raises the question whether such preventive programmes only lead to improvements in social skills or whether they also change more general aspects of individual development in a positive direction. If preventive social skills programmes might have such a broad impact, this is important for two reasons. In the first place, such programmes may help adolescents to deal better with the many developmental tasks /16/ with which they are confronted when they grow up. Secondly, they may contribute to the prevention of real problem behaviour. A first attempt to carry out this type of evaluative research has been made by Bijstra, Van der Kooi and Oostra /17/.

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